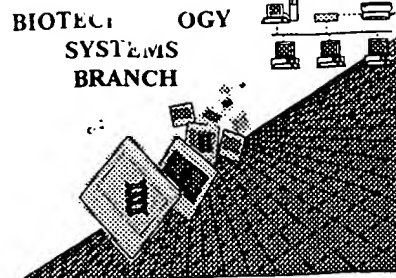


LN

## RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/819,104  
Source: OIPE  
Date Processed by STIC: 4/10/2001

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY.

**FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.**

**FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.**

**PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW**

### **Checker Version 3.0**

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

**Checker Version 3.0 can be down loaded from the USPTO website at the following address:**

**<http://www.uspto.gov/web/offices/pac/checker>**

OTFE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001

TIME: 16:14:29

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

Does Not Comply  
Corrected Diskette Needed

3 <110> APPLICANT: Chen, Don J.  
 5 <120> TITLE OF INVENTION: NOVEL NUCLEAR RECEPTOR COREPRESSOR MOLECULES  
 6 AND USES THEREFOR  
 8 <130> FILE REFERENCE: UMG-030  
 10 <140> CURRENT APPLICATION NUMBER: US/09/819,104  
 11 <141> CURRENT FILING DATE: 2001-03-27  
 13 <150> PRIOR APPLICATION NUMBER: 60/193,138  
 14 <151> PRIOR FILING DATE: 2000-03-29  
 16 <160> NUMBER OF SEQ ID NOS: 6  
 18 <170> SOFTWARE: PatentIn Ver. 2.0

## ERRORED SEQUENCES

701 <210> SEQ ID NO: 2  
 702 <211> LENGTH: 2507  
 703 <212> TYPE: PRT  
 704 <213> ORGANISM: Homo sapiens *pp 4-7*  
 706 <400> SEQUENCE: 2  
 707 Met Ser Gly Ser Thr Gln Pro Val Ala Gln Thr Top Arg Ala Thr Glu  
 708 1 5 10 15  
 710 Pro Arg Tyr Pro His Ser Leu Ser Tyr Pro Val Gln Ile Ala Arg  
 711 20 25 30  
 713 Thr His Thr Asp Val Gly Leu Leu Glu Tyr Gln His His Ser Arg Asp  
 714 35 40 45  
 716 Tyr Ala Ser His Leu Ser Pro Gly Ser Ile Ile Gln Pro Gln Arg Arg  
 717 50 55 60  
 719 Arg Pro Ser Leu Leu Ser Glu Phe Gln Pro Gly Asn Glu Arg Ser Gln  
 720 65 70 75 80  
 722 Glu Leu His Leu Arg Pro Glu Ser His Ser Tyr Leu Pro Glu Leu Gly  
 723 85 90 95  
 725 Lys Ser Glu Met Glu Phe Ile Glu Ser Lys Arg Pro Arg Leu Glu Leu  
 726 100 105 110  
 728 Leu Pro Asp Pro Leu Leu Arg Pro Ser Pro Leu Leu Ala Thr Gly Gln  
 729 115 120 125  
 731 Pro Ala Gly Ser Glu Asp Leu Thr Lys Asp Arg Ser Leu Thr Gly Lys  
 732 130 135 140  
 734 Leu Glu Pro Val Ser Pro Pro Ser Pro Pro His Thr Asp Pro Glu Leu  
 735 145 150 155 160  
 737 Glu Leu Val Pro Pro Arg Leu Ser Lys Glu Glu Leu Ile Gln Asn Met  
 738 165 170 175  
 740 Asp Arg Val Asp Arg Glu Ile Thr Met Val Glu Gln Gln Ile Ser Lys  
 741 180 185 190  
 743 Leu Lys Lys Lys Gln Gln Gln Leu Glu Glu Glu Ala Ala Lys Pro Pro  
 744 195 200 205  
 746 Glu Pro Glu Lys Pro Val Ser Pro Pro Pro Ile Glu Ser Lys His Arg  
 747 210 215 220

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001

TIME: 16:14:29

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

```

749 Ser Leu Val Gln Ile Ile Tyr Asp Glu Asn Arg Lys Lys Ala Glu Ala
750 225                230                235                240
752 Ala His Arg Ile Leu Glu Gly Leu Gly Pro Gln Val Glu Leu Pro Leu
753                245                250                255
755 Tyr Asn Gln Pro Ser Asp Thr Arg Gln Tyr His Glu Asn Ile Lys Ile
756                260                265                270
758 Asn Gln Ala Met Arg Lys Lys Leu Ile Leu Tyr Phe Lys Arg Arg Asn
759                275                280                285
761 His Ala Arg Lys Gln Trp Glu Gln Lys Phe Cys Gln Arg Tyr Asp Gln
762                290                295                300
764 Leu Met Glu Ala Trp Glu Lys Lys Val Glu Arg Ile Glu Asn Asn Pro
765 305                310                315                320
767 Arg Arg Arg Ala Lys Glu Ser Lys Val Arg Glu Tyr Tyr Glu Lys Gln
768                325                330                335
770 Phe Pro Glu Ile Arg Lys Gln Arg Glu Leu Gln Glu Arg Met Gln Arg
771                340                345                350
773 Val Gly Gln Arg Gly Ser Gly Leu Ser Met Ser Pro Ala Arg Ser Glu
774                355                360                365
776 His Glu Val Ser Glu Ile Ile Asp Gly Leu Ser Glu Gln Glu Asn Leu
777                370                375                380
779 Glu Lys Gln Met Arg Gln Leu Ala Val Ile Pro Pro Met Leu Tyr Asp
780 385                390                395                400
782 Ala Asp Gln Gln Arg Ile Lys Phe Ile Asn Met Asn Gly Leu Met Ala
783                405                410                415
785 Asp Pro Met Lys Val Tyr Lys Asp Arg Gln Val Met Asn Met Trp Ser
786                420                425                430
788 Glu Gln Glu Lys Glu Thr Phe Arg Glu Lys Phe Met Gln His Pro Lys
789                435                440                445
791 Asn Phe Gly Leu Ile Ala Ser Phe Leu Glu Arg Lys Thr Val Ala Glu
792                450                455                460
794 Cys Val Leu Tyr Tyr Tyr Leu Thr Lys Lys Asn Glu Asn Tyr Lys Ser
795 465                470                475                480
797 Leu Val Arg Arg Ser Tyr Arg Arg Arg Gly Lys Ser Gln Gln Gln Gln
798                485                490                495
800 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Met Pro
801                500                505                510
803 Arg Ser Ser Gln Glu Glu Lys Asp Glu Lys Glu Lys Glu Lys Glu Ala
804                515                520                525
806 Glu Lys Glu Glu Glu Lys Pro Glu Val Glu Asn Asp Lys Glu Asp Leu
807                530                535                540
809 Leu Lys Glu Lys Thr Asp Asp Thr Ser Gly Glu Asp Asn Asp Glu Lys
810 545                550                555                560
812 Glu Ala Val Ala Ser Lys Gly Arg Lys Thr Ala Asn Ser Gln Gly Arg
813                565                570                575
815 Arg Lys Gly Arg Ile Thr Arg Ser Met Ala Asn Glu Ala Asn Ser Glu
816                580                585                590
818 Glu Ala Ile Thr Pro Gln Gln Ser Ala Glu Leu Ala Ser Met Glu Leu
819                595                600                605
821 Asn Glu Ser Ser Arg Trp Thr Glu Glu Glu Met Glu Thr Ala Lys Lys

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001

TIME: 16:14:29

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

822	610	615	620
824	Gly Leu Leu Glu His Gly Arg Asn Trp Ser Ala Ile Ala Arg Met Val		
825	625	630	635
827	Gly Ser Lys Thr Val Ser Gln Cys Lys Asn Phe Tyr Phe Asn Tyr Lys		640
828		645	650
830	Lys Arg Gln Asn Leu Asp Glu Ile Leu Gln Gln His Lys Leu Lys Met		655
831		660	665
833	Glu Lys Glu Arg Asn Ala Arg Arg Lys Lys Lys Lys Ala Pro Ala Ala		670
834		675	680
836	Ala Ser Glu Glu Ala Ala Phe Pro Pro Val Val Glu Asp Glu Glu Met		685
837		690	695
839	Glu Ala Ser Gly Val Thr Gly Asn Glu Glu Glu Met Val Glu Glu Ala		700
840	705	710	715
842	Glu Ala Thr Val Asn Ser Ser Asp Thr Glu Ser Ile Pro Ser Pro		720
843		725	730
845	His Thr Glu Ala Ala Lys Asp Thr Gly Gln Asn Gly Pro Lys Pro Pro		735
846		740	745
848	Ala Thr Leu Gly Ala Asp Gly Pro Pro Pro Gly Pro Pro Thr Pro Pro		750
849		755	760
851	Pro Glu Asp Ile Pro Ala Pro Thr Glu Ser Thr Pro Ala Ser Glu Ala		765
852		770	775
854	Thr Leu Ala Pro Thr Pro Pro Pro Ala Pro Pro Phe Pro Ser Ser Pro		780
855	785	790	795
857	Pro Pro Val Val Pro Lys Glu Glu Lys Glu Glu Glu Thr Ala Ala Ala		800
858		805	810
860	Pro Pro Val Glu Glu Gly Glu Glu Gln Lys Pro Pro Ala Ala Glu Glu		815
861		820	825
863	Leu Ala Val Asp Thr Gly Lys Ala Glu Glu Pro Val Lys Ser Glu Cys		830
864		835	840
866	Thr Glu Glu Ala Glu Glu Gly Pro Ala Lys Gly Lys Asp Ala Glu Ala		845
867		850	855
869	Ala Glu Ala Thr Ala Glu Arg Ala Leu Lys Ala Glu Lys Lys Glu Gly		860
870	865	870	875
872	Gly Ser Gly Arg Ala Thr Thr Ala Lys Ser Ser Gly Ala Pro Gln Asp		880
873		885	890
875	Ser Asp Ser Ser Ala Thr Cys Ser Ala Asp Glu Val Asp Glu Ala Glu		895
876		900	905
878	Gly Gly Asp Lys Asn Arg Leu Leu Ser Pro Arg Pro Ser Leu Leu Thr		910
879		915	920
881	Pro Thr Gly Asp Pro Arg Ala Asn Ala Ser Pro Gln Lys Pro Leu Asp		925
882		930	935
884	Leu Lys Gln Leu Lys Gln Arg Ala Ala Ala Ile Pro Pro Ile Gln Val		940
885	945	950	955
887	Thr Lys Val His Glu Pro Pro Arg Glu Asp Ala Ala Pro Thr Lys Pro		960
888		965	970
890	Ala Pro Pro Ala Pro Pro Pro Pro Gln Asn Leu Gln Pro Glu Ser Asp		975
891		980	985
893	Ala Pro Gln Gln Pro Gly Ser Ser Pro Arg Gly Lys Ser Arg Ser Pro		990
894		995	1000
			1005

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
TIME: 16:14:29

Input Set : A:\seqlist.txt  
Output Set: N:\CRF3\04102001\I819104.raw

```

896 Ala Pro Pro Ala Asp Lys Glu Ala Glu Lys Pro Val Phe Phe Pro Ala
897 1010 1015 1020
899 Phe Ala Ala Glu Ala Gln Lys Leu Pro Gly Asp Pro Pro Cys Trp Thr
E--> 900 025 1025 1030 1035 1040
902 Ser Gly Leu Pro Phe Pro Val Pro Pro Arg Glu Val Ile Lys Ala Ser
903 1045 1050 1055
905 Pro His Ala Pro Asp Pro Ser Ala Phe Ser Tyr Ala Pro Pro Gly His
906 1060 1065 1070
908 Pro Leu Pro Leu Gly Leu His Asp Thr Ala Arg Pro Val Leu Pro Arg
909 1075 1080 1085
911 Pro Pro Thr Ile Ser Asn Pro Pro Pro Leu Ile Ser Ser Ala Lys His
912 1090 1095 1100
914 Pro Ser Val Leu Glu Arg Gln Ile Gly Ala Ile Ser Gln Gly Met Ser
E--> 916 105 1105 1110 1115 1120
917 Val Gln Leu His Val Pro Tyr Ser Glu His Ala Lys Ala Pro Val Gly
918 1125 1130 1135
920 Pro Val Thr Met Gly Leu Pro Leu Pro Met Asp Pro Lys Lys Leu Ala
921 1140 1145 1150
923 Pro Phe Ser Gly Val Lys Gln Glu Gln Leu Ser Pro Arg Gly Gln Ala
924 1155 1160 1165
926 Gly Pro Pro Glu Ser Leu Gly Val Pro Thr Ala Gln Glu Ala Ser Val
927 1170 1175 1180
929 Leu Arg Gly Thr Ala Leu Gly Ser Val Pro Gly Gly Ser Ile Thr Lys
E--> 930 185 1185 1190 1195 1200
932 Gly Ile Pro Ser Thr Arg Val Pro Ser Asp Ser Ala Ile Thr Tyr Arg
933 1205 1210 1215
935 Gly Ser Ile Thr His Gly Thr Pro Ala Asp Val Leu Tyr Lys Gly Thr
936 1220 1225 1230
938 Ile Thr Arg Ile Ile Gly Glu Asp Ser Pro Ser Arg Leu Asp Arg Gly
939 1235 1240 1245
941 Arg Glu Asp Ser Leu Pro Lys Gly His Val Ile Tyr Glu Gly Lys Lys
942 1250 1255 1260
944 Gly His Val Leu Ser Tyr Glu Gly Gly Met Ser Val Thr Gln Cys Ser
E--> 946 265 1265 1270 1275 1280
947 Lys Glu Asp Gly Arg Ser Ser Ser Gly Pro Pro His Glu Thr Ala Ala
948 1285 1290 1295
950 Pro Lys Arg Thr Tyr Asp Met Met Glu Gly Arg Val Gly Arg Ala Ile
951 1300 1305 1310
953 Ser Ser Ala Ser Ile Glu Gly Leu Met Gly Arg Ala Ile Pro Pro Glu
954 1315 1320 1325
956 Arg His Ser Pro His His Leu Lys Glu Gln His His Ile Arg Gly Ser
957 1330 1335 1340
959 Ile Thr Gln Gly Ile Pro Arg Ser Tyr Val Glu Ala Gln Glu Asp Tyr
E--> 960 345 1345 1350 1355 1360
962 Leu Arg Arg Glu Ala Lys Leu Leu Lys Arg Glu Gly Thr Pro Pro Pro
963 1365 1370 1375
965 Pro Pro Pro Ser Arg Asp Leu Thr Glu Ala Tyr Lys Thr Gln Ala Leu
966 1380 1385 1390
968 Gly Pro Leu Lys Leu Lys Pro Ala His Glu Gly Leu Val Ala Thr Val

```

*When numbering  
first amino acid  
on a line, begin  
number under  
first letter of the  
amino acid. Please  
leave one space  
between end of  
number and next  
amino acid*

*e.g Phe | 5 | Ala  
1025 | 2 |*

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
TIME: 16:14:29

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

```

969      1395      1400      1405
971 Lys Glu Ala Gly Arg Ser Ile His Glu Ile Pro Arg Glu Glu Leu Arg
972      1410      1415      1420
974 His Thr Pro Glu Leu Pro Leu Ala Pro Arg Pro Leu Lys Glu Gly Ser
E--> 975 425      1430      1435      1440
977 Ile Thr Gln Gly Thr Pro Leu Lys Tyr Asp Thr Gly Ala Ser Thr Thr
978      1445      1450      1455
980 Gly Ser Lys Lys His Asp Val Arg Ser Leu Ile Gly Ser Pro Gly Arg
981      1460      1465      1470
983 Thr Phe Pro Pro Val His Pro Leu Asp Val Met Ala Asp Ala Arg Ala
984      1475      1480      1485
986 Leu Glu Arg Ala Cys Tyr Glu Glu Ser Leu Lys Ser Arg Pro Gly Thr
987      1490      1495      1500
989 Ala Ser Ser Ser Gly Gly Ser Ile Ala Arg Gly Ala Pro Val Ile Val
E--> 990 505      1510      1515      1520
992 Pro Glu Leu Gly Lys Pro Arg Gln Ser Pro Leu Thr Tyr Glu Asp His
993      1525      1530      1535
995 Gly Ala Pro Phe Ala Gly His Leu Pro Arg Gly Ser Pro Val Thr Met
996      1540      1545      1550
998 Arg Glu Pro Thr Pro Arg Leu Gln Glu Gly Ser Leu Ser Ser Ser Lys
999      1555      1560      1565
1001 Ala Ser Gln Asp Arg Lys Leu Thr Ser Thr Pro Arg Glu Ile Ala Lys
1002      1570      1575      1580
1004 Ser Pro His Ser Thr Val Pro Glu His His Pro His Pro Ile Ser Pro
E--> 1005 585      1590      1595      1600
1007 Tyr Glu His Leu Leu Arg Gly Val Ser Gly Val Asp Leu Tyr Arg Ser
1008      1605      1610      1615
1010 His Ile Pro Leu Ala Phe Asp Pro Thr Ser Ile Pro Arg Gly Ile Pro
1011      1620      1625      1630
1013 Leu Asp Ala Ala Ala Ala Tyr Tyr Leu Pro Arg His Leu Ala Pro Asn
1014      1635      1640      1645
1016 Pro Thr Tyr Pro His Leu Tyr Pro Pro Tyr Leu Ile Arg Gly Tyr Pro
1017      1650      1655      1660
1019 Asp Thr Ala Ala Leu Glu Asn Arg Gln Thr Ile Ile Asn Asp Tyr Ile
E--> 1020 665      1670      1675      1680
1022 Thr Ser Gln Gln Met His His Asn Thr Ala Thr Ala Met Ala Gln Arg
1023      1685      1690      1695
1025 Ala Asp Met Leu Arg Gly Leu Ser Pro Arg Glu Ser Ser Leu Ala Leu
1026      1700      1705      1710
1028 Asn Tyr Ala Ala Gly Pro Arg Gly Ile Ile Asp Leu Ser Gln Val Pro
1029      1715      1720      1725
1031 His Leu Pro Val Leu Val Pro Pro Thr Pro Gly Thr Pro Ala Thr Ala
1032      1730      1735      1740
1034 Met Asp Arg Leu Ala Tyr Leu Pro Thr Ala Pro Gln Pro Phe Ser Ser
E--> 1035 745      1750      1755      1760
1037 Arg His Ser Ser Ser Pro Leu Ser Pro Gly Gly Pro Thr His Leu Thr
1038      1765      1770      1775
1040 Lys Pro Thr Thr Ser Ser Ser Glu Arg Glu Arg Asp Arg Asp Arg
1041      1780      1785      1790

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*edit*  
*nos.*

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
TIME: 16:14:29

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

```

1043 Glu Arg Asp Arg Asp Arg Glu Arg Glu Lys Ser Ile Leu Thr Ser Thr
1044      1795      1800      1805
1046 Thr Thr Val Glu His Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser
1047      1810      1815      1820
1049 Ser Gly Ser Ser Gly Ser Ser Gly Gly Gly Gly Ser Ser Ser Arg
E--> 1050 825      1830      1835      1840
1052 Pro Ala Ser His Ser His Ala His Gln His Ser Pro Ile Ser Pro Arg
1053      1845      1850      1855
1055 Thr Gln Asp Ala Leu Gln Gln Arg Pro Ser Val Leu His Asn Thr Gly
1056      1860      1865      1870
1058 Met Lys Gly Ile Ile Thr Ala Val Glu Pro Ser Lys Pro Thr Val Leu
1059      1875      1880      1885
1061 Arg Ser Thr Ser Thr Ser Ser Pro Val Arg Pro Ala Ala Thr Phe Pro
1062      1890      1895      1900
1064 Pro Ala Thr His Cys Pro Leu Gly Gly Thr Leu Asp Gly Val Tyr Pro
E--> 1065 905      1910      1915      1920
1067 Thr Leu Met Glu Pro Val Leu Leu Pro Lys Glu Ala Pro Arg Val Ala
1068      1925      1930      1935
1070 Arg Pro Glu Arg Pro Arg Ala Asp Thr Gly His Ala Phe Leu Ala Lys
1071      1940      1945      1950
1073 Pro Pro Ala Arg Ser Gly Leu Glu Pro Ala Ser Ser Pro Ser Lys Gly
1074      1955      1960      1965
1076 Ser Glu Pro Arg Pro Leu Val Pro Pro Val Ser Gly His Ala Thr Ile
1077      1970      1975      1980
1079 Ala Arg Thr Pro Ala Lys Asn Leu Ala Pro His His Ala Ser Pro Asp
E--> 1080 985      1990      1995      2000
1082 Pro Pro Ala Pro Pro Ala Ser Ala Ser Asp Pro His Arg Glu Lys Thr
1083      2005      2010      2015
1085 Gln Ser Lys Pro Phe Ser Ile Gln Glu Leu Glu Leu Arg Ser Leu Gly
1086      2020      2025      2030
1088 Tyr His Gly Ser Ser Tyr Ser Pro Glu Gly Val Glu Pro Val Ser Pro
1089      2035      2040      2045
1091 Val Ser Ser Pro Ser Leu Thr His Asp Lys Gly Leu Pro Lys His Leu
1092      2050      2055      2060
1094 Glu Glu Leu Asp Lys Ser His Leu Glu Gly Glu Leu Arg Pro Lys Gln
E--> 1095 065      2070      2075      2080
1097 Pro Gly Pro Val Lys Leu Gly Gly Glu Ala Ala His Leu Pro His Leu
1098      2085      2090      2095
1100 Arg Pro Leu Pro Glu Ser Gln Pro Ser Ser Ser Pro Leu Leu Gln Thr
1101      2100      2105      2110
1103 Ala Pro Gly Val Lys Gly His Gln Arg Val Val Thr Leu Ala Gln His
1104      2115      2120      2125
1106 Ile Ser Glu Val Ile Thr Gln Asp Tyr Thr Arg His His Pro Gln Gln
1107      2130      2135      2140
1109 Leu Ser Ala Pro Leu Pro Ala Pro Leu Tyr Ser Phe Pro Gly Ala Ser
E--> 1110 145      2150      2155      2160
1112 Cys Pro Val Leu Asp Leu Arg Arg Pro Pro Ser Asp Leu Tyr Leu Pro
1113      2165      2170      2175
1115 Pro Pro Asp His Gly Ala Pro Ala Arg Gly Ser Pro His Ser Glu Gly

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*edit*  
*nos.*

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
 TIME: 16:14:29

Input Set : A:\seqlist.txt  
 Output Set: N:\CRF3\04102001\I819104.raw

1116 2180 2185 2190  
 1118 Gly Lys Arg Ser Pro Glu Pro Asn Lys Thr Ser Val Leu Gly Gly Gly  
 1119 2195 2200 2205  
 1121 Glu Asp Gly Ile Glu Pro Val Ser Pro Pro Glu Gly Met Thr Glu Pro  
 1122 2210 2215 2220  
 1124 Gly His Ser Arg Ser Ala Val Tyr Pro Leu Leu Tyr Arg Asp Gly Glu  
 E--> 1125 225 2230 2235 2240  
 1127 Gln Thr Glu Pro Ser Arg Met Gly Ser Lys Ser Pro Gly Asn Thr Ser  
 1128 2245 2250 2255  
 1130 Gln Pro Pro Ala Phe Phe Ser Lys Leu Thr Glu Ser Asn Ser Ala Met  
 1131 2260 2265 2270  
 1133 Val Lys Ser Lys Lys Gln Glu Ile Asn Lys Lys Leu Asn Thr His Asn  
 1134 2275 2280 2285  
 1136 Arg Asn Glu Pro Glu Tyr Asn Ile Ser Gln Pro Gly Thr Glu Ile Phe  
 1137 2290 2295 2300  
 1139 Asn Met Pro Ala Ile Thr Gly Thr Gly Leu Met Thr Tyr Arg Ser Gln  
 E--> 1140 305 2310 2315 2320  
 1142 Ala Val Gln Glu His Ala Ser Thr Asn Met Gly Leu Glu Ala Ile Ile  
 1143 2325 2330 2335  
 1145 Arg Lys Ala Leu Met Gly Lys Tyr Asp Gln Trp Glu Glu Ser Pro Pro  
 1146 2340 2345 2350  
 1148 Leu Ser Ala Asn Ala Phe Asn Pro Leu Asn Ala Ser Ala Ser Leu Pro  
 1149 2355 2360 2365  
 1151 Ala Ala Met Pro Ile Thr Ala Ala Asp Gly Arg Ser Asp His Thr Leu  
 1152 2370 2375 2380  
 1154 Thr Ser Pro Gly Gly Gly Gly Lys Ala Lys Val Ser Gly Arg Pro Ser  
 E--> 1155 385 2390 2395 2400  
 1157 Ser Arg Lys Ala Lys Ser Pro Ala Pro Gly Leu Ala Ser Gly Asp Arg  
 1158 2405 2410 2415  
 1160 Pro Pro Ser Val Ser Ser Val His Ser Glu Gly Asp Cys Asn Arg Arg  
 1161 2420 2425 2430  
 1163 Thr Pro Leu Thr Asn Arg Val Trp Glu Asp Arg Pro Ser Ser Ala Gly  
 1164 2435 2440 2445  
 1166 Ser Thr Pro Phe Pro Tyr Asn Pro Leu Ile Met Arg Leu Gln Ala Gly  
 1167 2450 2455 2460  
 1169 Val Met Ala Ser Pro Pro Pro Gly Leu Pro Ala Gly Ser Gly Pro  
 E--> 1170 465 2470 2475 2480  
 1172 Leu Ala Gly Pro His His Ala Trp Asp Glu Glu Pro Lys Pro Leu Leu  
 1173 2485 2490 2495  
 1175 Cys Ser Gln Tyr Glu Thr Leu Ser Asp Ser Glu  
 1176 2500 2505  
 2486 <210> SEQ ID NO: 5  
 2487 <211> LENGTH: 2462  
 2488 <212> TYPE: PRT  
 2489 <213> ORGANISM: Mus musculus  
 2491 <400> SEQUENCE: 5  
 2492 Met Ser Gly Ser Thr Gln Pro Val Ala Gln Thr Trp Arg Ala Ala Glu  
 2493 1 5 10 15  
 2495 Pro Arg Tyr Pro Pro His Gly Ile Ser Tyr Pro Val Gln Ile Ala Arg

*edit  
nos.*

*ppr 10-14*



## RAW SEQUENCE LISTING

DATE: 04/10/2001

PATENT APPLICATION: US/09/819,104

TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\1819104.raw

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2496          20          25          30
2498 Ser His Thr Asp Val Gly Leu Leu Glu Tyr Gln His His Pro Arg Asp
2499          35          40          45
2501 Tyr Thr Ser His Leu Ser Pro Gly Ser Ile Ile Gln Pro Gln Arg Arg
2502          50          55          60
2504 Arg Pro Ser Leu Leu Ser Glu Phe Gln Pro Gly Ser Glu Arg Ser Gln
2505          65          70          75          80
2507 Glu Leu His Leu Arg Pro Glu Ser Arg Thr Phe Leu Pro Glu Leu Gly
2508          85          90          95
2510 Lys Pro Asp Ile Glu Phe Thr Glu Ser Lys Arg Pro Arg Leu Glu Leu
2511          100         105         110
2513 Leu Pro Asp Thr Leu Leu Arg Pro Ser Pro Leu Leu Ala Thr Gly Gln
2514          115         120         125
2516 Pro Ser Gly Ser Glu Asp Leu Thr Lys Asp Arg Ser Leu Ala Gly Lys
2517          130         135         140
2519 Leu Glu Pro Val Ser Pro Pro Ser Pro Pro His Ala Asp Pro Glu Leu
2520          145         150         155         160
2522 Glu Leu Ala Pro Ser Arg Leu Ser Lys Glu Glu Leu Ile Gln Asn Arg
2523          165         170         175
2525 Leu Asp Arg Val Asp Arg Glu Ile Thr Met Val Glu Gln Gln Ile Ser
2526          180         185         190
2528 Lys Leu Lys Lys Lys Cln Cln Cln Leu Glu Glu Glu Ala Ala Lys Pro
2529          195         200         205
2531 Pro Glu Pro Glu Lys Pro Val Ser Pro Pro Pro Ile Glu Ser Lys His
2532          210         215         220
2534 Arg Ser Leu Val Gln Ile Ile Tyr Asp Glu Asn Arg Lys Lys Ala Glu
2535          225         230         235         240
2537 Ala Ala His Arg Ile Leu Glu Gly Leu Gly Pro Gln Val Glu Leu Pro
2538          245         250         255
2540 Leu Tyr Asn Gln Pro Ser Asp Thr Arg Gln Tyr His Glu Asn Ile Lys
2541          260         265         270
2543 Ile Asn Gln Ala Met Arg Lys Lys Leu Ile Leu Tyr Phe Lys Arg Arg
2544          275         280         285
2546 Asn His Ala Arg Lys Gln Trp Glu Gln Arg Phe Cys Gln Arg Tyr Asp
2547          290         295         300
2549 Gln Leu Met Glu Ala Trp Glu Lys Lys Val Glu Arg Ile Glu Asn Asn
2550          305         310         315         320
2552 Pro Arg Arg Arg Ala Lys Glu Ser Lys Val Arg Glu Tyr Tyr Glu Lys
2553          325         330         335
2555 Gln Phe Pro Glu Ile Arg Lys Gln Arg Glu Leu Gln Glu Arg Met Gln
2556          340         345         350
2558 Ser Arg Val Gly Gln Arg Gly Ser Gly Leu Ser Met Ser Ala Ala Arg
2559          355         360         365
2561 Ser Glu His Glu Val Ser Glu Ile Ile Asp Gly Leu Ser Glu Gln Glu
2562          370         375         380
2564 Asn Leu Glu Lys Gln Met Arg Gln Leu Ala Val Ile Arg His Val Val
2565          385         390         395         400
2567 Arg Arg Asp Gln Gln Arg Ile Lys Phe Ile Asn Met Asn Gly Leu Met
2568          405         410         415

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
 TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

```

2570 Asp Asp Pro Met Lys Val Tyr Lys Asp Arg Gln Val Thr Asn Met Trp
2571          420          425          430
2573 Ser Glu Gln Glu Arg Asp Thr Phe Arg Glu Lys Phe Met Gln His Pro
2574          435          440          445
2576 Lys Asn Phe Gly Leu Ile Ala Ser Phe Leu Glu Arg Lys Thr Val Ala
2577          450          455          460
2579 Glu Cys Val Leu Tyr Tyr Tyr Leu Thr Lys Lys Asn Glu Asn Tyr Lys
2580 465          470          475          480
2582 Ser Leu Val Arg Arg Ser Tyr Arg Arg Arg Gly Lys Ser Gln Gln Gln
2583          485          490          495
2585 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Met Ala Arg Ser Ser
2586          500          505          510
2588 Gln Glu Glu Lys Glu Glu Lys Glu Lys Glu Lys Glu Ala Asp Lys Glu
2589          515          520          525
2591 Glu Glu Lys Gln Asp Ala Glu Asn Glu Lys Glu Glu Leu Ser Lys Glu
2592          530          535          540
2594 Lys Thr Asp Asp Thr Ser Gly Glu Asp Asn Asp Glu Lys Glu Ala Val
2595 545          550          555          560
2597 Ala Ser Lys Gly Arg Lys Thr Ala Asn Ser Gln Gly Arg Arg Lys Gly
2598          565          570          575
2600 Arg Ile Thr Arg Ser Met Ala Asn Glu Ala Asn His Glu Glu Thr Ala
2601          580          585          590
2603 Thr Pro Gln Gln Ser Ser Glu Leu Ala Ser Met Glu Met Asn Glu Ser
2604          595          600          605
2606 Ser Arg Trp Thr Glu Glu Glu Met Glu Thr Ala Lys Lys Gly Leu Leu
2607          610          615          620
2609 Glu His Gly Arg Asn Trp Ser Ala Ile Ala Arg Met Val Gly Ser Lys
2610 625          630          635          640
2612 Thr Val Ser Gln Cys Lys Asn Phe Tyr Phe Asn Tyr Lys Lys Arg Gln
2613          645          650          655
2615 Asn Leu Asp Glu Ile Leu Gln Gln His Lys Leu Lys Met Glu Lys Glu
2616          660          665          670
2618 Arg Asn Ala Arg Arg Lys Lys Lys Lys Thr Pro Ala Ala Ser Glu
2619          675          680          685
2621 Glu Thr Ala Phe Pro Pro Ala Ala Glu Asp Glu Glu Met Glu Ala Ser
2622          690          695          700
2624 Gly Ala Ser Ala Asn Glu Glu Glu Leu Ala Glu Glu Ala Glu Ala Ser
2625 705          710          715          720
2627 Gln Ala Ser Gly Asn Glu Val Pro Arg Val Gly Glu Cys Ser Gly Pro
2628          725          730          735
2630 Ala Ala Val Asn Asn Ser Ser Asp Thr Glu Ser Val Pro Ser Pro Arg
2631          740          745          750
2633 Ser Glu Ala Thr Lys Asp Thr Gly Pro Lys Pro Thr Gly Thr Glu Ala
2634          755          760          765
2636 Leu Pro Ala Ala Thr Gln Pro Pro Val Pro Pro Glu Glu Pro Ala
2637          770          775          780
2639 Ala Ala Pro Ala Glu Pro Ser Pro Val Pro Asp Ala Ser Gly Pro Pro
2640 785          790          795          800
2642 Ser Pro Glu Pro Ser Pro Ser Pro Ala Ala Pro Pro Ala Thr Val Asp

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
 TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

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2643          805          810          815
2645 Lys Asp Glu Gln Glu Ala Pro Ala Ala Pro Ala Pro Gln Thr Glu Asp
2646          820          825          830
2648 Ala Lys Glu Gln Lys Ser Glu Ala Glu Glu Ile Asp Val Gly Lys Pro
2649          835          840          845
2651 Glu Glu Pro Glu Ala Ser Glu Glu Pro Pro Glu Ser Val Lys Ser Asp
2652          850          855          860
2654 His Lys Glu Glu Thr Glu Glu Glu Pro Glu Asp Lys Ala Lys Gly Thr
2655 865          870          875          880
2657 Glu Ala Ile Glu Thr Val Ser Glu Ala Pro Leu Lys Val Glu Glu Ala
2658          885          890          895
2660 Gly Ser Lys Ala Ala Val Thr Lys Gly Ser Ser Ser Gly Ala Thr Gln
2661          900          905          910
2663 Asp Ser Asp Ser Ser Ala Thr Cys Ser Ala Asp Glu Val Asp Glu Pro
2664          915          920          925
2666 Glu Gly Gly Asp Lys Gly Arg Leu Leu Ser Pro Arg Pro Ser Leu Leu
2667          930          935          940
2669 Thr Pro Ala Gly Asp Pro Arg Ala Ser Thr Ser Pro Gln Lys Pro Leu
2670 945          950          955          960
2672 Asp Leu Lys Gln Leu Lys Gln Arg Ala Ala Ala Ile Pro Pro Ile Val
2673          965          970          975
2675 Thr Lys Val His Glu Pro Pro Arg Glu Asp Thr Val Pro Pro Lys Pro
2676          980          985          990
2678 Val Pro Pro Val Pro Pro Pro Thr Gln His Leu Gln Pro Glu Gly Asp
2679          995          1000          1005
2681 Val Ser Gln Gln Ser Gly Gly Ser Pro Arg Gly Lys Ser Arg Ser Pro
2682          1010          1015          1020
2684 Val Pro Pro Ala Glu Lys Glu Ala Glu Lys Pro Ala Phe Phe Pro Ala
E--> 2685 1025          1030          1035          1040
2687 Phe Pro Thr Glu Gly Gln Ser Tyr Arg Leu Ser Pro His Ala Gly His
2688          1045          1050          1055
2690 Arg Leu Pro Ser His Pro Pro Arg Glu Val Ile Lys Thr Ser Thr Arg
2691          1060          1065          1070
2693 Ala Asp Pro Leu Phe Ser Tyr Thr Pro Pro Gly His Pro Leu Pro Leu
2694          1075          1080          1085
2696 Gly Leu His Asp Ser Ala Arg Pro Val Leu Pro Arg Pro Pro Ile Ser
2697          1090          1095          1100
2699 Asp Pro Pro Pro Leu Ile Ser Ser Ala Lys His Pro Gly Val Leu Glu
E--> 2700 105          1110          1115          1120
2702 Arg Gln Leu Gly Ala Ile Ser Gln Gly Met Ser Val Gln Leu Arg Val
2703          1125          1130          1135
2705 Pro His Ser Glu His Ala Lys Pro Met Gly Pro Leu Thr Met Glu Leu
2706          1140          1145          1150
2708 Pro Leu Ala Val Asp Pro Lys Lys Leu Gly Thr Ala Leu Ala Pro Pro
2709          1155          1160          1165
2711 Pro Val Glu Ala Ser Pro Arg Ala Ser Gln Tyr Pro Gly Cys Arg Arg
2712          1170          1175          1180
2714 Pro Gln Leu Gln Arg Leu Tyr His Pro Arg Thr Pro Ala Asp Val Leu
E--> 2715 185          1190          1195          1200

```

*same  
error*

## RAW SEQUENCE LISTING

DATE: 04/10/2001

PATENT APPLICATION: US/09/819,104

TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

2717 Tyr Lys Gly Thr Ile Ser Arg Ile Val Gly Glu Asp Ser Pro Ser Arg  
 2718 1205 1210 1215  
 2720 Leu Asp Arg Ala Arg Glu Asp Thr Leu Pro Lys Gly His Val Ile Tyr  
 2721 1220 1225 1230  
 2723 Glu Gly Lys Lys Gly His Val Leu Ser Tyr Glu Gly Gly Met Ser Val  
 2724 1235 1240 1245  
 2726 Ser Gln Cys Ser Lys Glu Asp Gly Arg Ser Ser Ser Gly Pro Pro His  
 2727 1250 1255 1260  
 2729 Glu Thr Ala Ala Pro Lys Arg Thr Tyr Asp Met Met Glu Gly Arg Val  
 E--> 2730 265 1270 1275 1280  
 2732 Gly Arg Thr Val Thr Ser Ala Ser Ile Glu Gly Leu Met Gly Arg Ala  
 2733 1285 1290 1295  
 2735 Ile Pro Glu Gln His Ser Pro His Leu Lys Glu Gln His His Ile Arg  
 2736 1300 1305 1310  
 2738 Gly Ser Ile Thr Gln Gly Ile Pro Arg Ser Tyr Val Glu Ala Gln Glu  
 2739 1315 1320 1325  
 2741 Asp Tyr Leu Arg Arg Glu Ala Lys Leu Leu Lys Arg Glu Gly Thr Pro  
 2742 1330 1335 1340  
 2744 Pro Pro Pro Pro Pro Pro Arg Asp Leu Thr Glu Thr Tyr Lys Pro Arg  
 E--> 2745 345 1350 1355 1360  
 2747 Pro Leu Asp Pro Leu Gly Pro Leu Lys Leu Lys Pro Thr His Glu Gly  
 2748 1365 1370 1375  
 2750 Val Val Ala Thr Val Lys Glu Ala Gly Arg Ser Ile His Glu Ile Pro  
 2751 1380 1385 1390  
 2753 Arg Glu Glu Leu Arg Arg Thr Pro Glu Leu Pro Leu Ala Pro Arg Pro  
 2754 1395 1400 1405  
 2756 Leu Lys Glu Gly Ser Ile Thr Gln Gly Thr Pro Leu Lys Tyr Asp Ser  
 2757 1410 1415 1420  
 2759 Gly Ala Pro Ser Thr Gly Thr Lys Lys His Asp Val Arg Ser Ile Ile  
 E--> 2760 425 1430 1435 1440  
 2762 Gly Ser Pro Gly Arg Pro Phe Pro Ala Leu His Pro Leu Asp Ile Met  
 2763 1445 1450 1455  
 2765 Ala Asp Ala Arg Ala Leu Glu Arg Ala Cys Tyr Glu Glu Ser Leu Lys  
 2766 1460 1465 1470  
 2768 Ser Arg Ser Gly Thr Ser Ser Gly Ala Gly Gly Ser Ile Thr Arg Gly  
 2769 1475 1480 1485  
 2771 Ala Pro Val Val Val Pro Glu Leu Gly Lys Pro Arg Gln Ser Pro Leu  
 2772 1490 1495 1500  
 2774 Thr Tyr Glu Asp His Gly Ala Pro Phe Thr Ser His Leu Pro Arg Gly  
 E--> 2775 505 1510 1515 1520  
 2777 Ser Pro Val Thr Thr Arg Glu Pro Thr Pro Arg Leu Gln Glu Gly Ser  
 2778 1525 1530 1535  
 2780 Leu Leu Ser Ser Lys Ala Ser Gln Asp Arg Lys Leu Thr Ser Thr Pro  
 2781 1540 1545 1550  
 2783 Arg Glu Ile Ala Lys Ser Pro His Ser Thr Val Pro Glu His His Pro  
 2784 1555 1560 1565  
 2786 His Pro Ile Ser Pro Tyr Glu His Leu Leu Arg Gly Val Thr Gly Val  
 2787 1570 1575 1580  
 2789 Asp Leu Tyr Arg Gly His Ile Pro Leu Ala Phe Asp Pro Thr Ser Ile

*same*

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
TIME: 16:14:30

Input Set: A:\seqlist.txt

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```

E--> 2790 585          1590          1595          1600
2792 Pro Arg Gly Ile Pro Leu Glu Ala Ala Ala Tyr Tyr Leu Pro
2793          1605          1610          1615
2795 Arg His Leu Ala Pro Ser Pro Thr Tyr Pro His Leu Tyr Pro Pro Tyr
2796          1620          1625          1630
2798 Leu Ile Arg Gly Tyr Pro Asp Thr Ala Ala Leu Glu Asn Arg Gln Thr
2799          1635          1640          1645
2801 Ile Ile Asn Asp Tyr Ile Thr Ser Gln Gln Met His His Asn Ala Ala
2802          1650          1655          1660
2804 Ser Ala Met Ala Gln Arg Ala Asp Met Leu Arg Gly Leu Ser Pro Arg
E--> 2805 665          1670          1675          1680
2807 Glu Ser Ser Leu Ala Leu Asn Tyr Ser Ala Gly Pro Arg Gly Ile Ile
2808          1685          1690          1695
2810 Asp Leu Ser Gln Val Pro His Leu Pro Val Leu Val Pro Pro Thr Pro
2811          1700          1705          1710
2813 Gly Thr Pro Ala Thr Ala Ile Asp Arg Leu Ala Tyr Leu Pro Thr Ala
2814          1715          1720          1725
2816 Pro Pro Pro Phe Ser Ser Arg His Ser Ser Ser Pro Leu Ser Pro Gly
2817          1730          1735          1740
2819 Gly Pro Thr His Leu Ala Lys Pro Thr Ala Thr Ser Ser Ser Glu Arg
E--> 2820 745          1750          1755          1760
2822 Glu Arg Glu Arg Glu Arg Glu Arg Asp Lys Ser Ile Leu Thr Ser Thr
2823          1765          1770          1775
2825 Thr Thr Val Glu His Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser
2826          1780          1785          1790
2828 Ser Gly Ala Gly Gly Ser Ser Arg Pro Ala Ser His Thr His Gln His
2829          1795          1800          1805
2831 Ser Pro Ile Ser Pro Arg Thr Gln Asp Ala Leu Gln Gln Arg Pro Ser
2832          1810          1815          1820
2834 Val Leu His Asn Thr Ser Met Lys Gly Val Val Thr Ser Val Glu Pro
E--> 2835 825          1830          1835          1840
2837 Gly Thr Pro Thr Val Leu Arg Ser Thr Ser Thr Ser Ser Pro Val Arg
2838          1845          1850          1855
2840 Pro Ala Ala Thr Phe Pro Pro Ala Thr His Cys Pro Leu Gly Gly Thr
2841          1860          1865          1870
2843 Leu Glu Gly Val Tyr Pro Thr Leu Met Glu Pro Val Leu Leu Pro Lys
2844          1875          1880          1885
2846 Glu Thr Ser Arg Val Ala Arg Pro Glu Arg Pro Arg Val Asp Gly Gly
2847          1890          1895          1900
2849 His Ala Phe Leu Thr Lys Pro Pro Ala Arg Glu Pro Ala Ser Ser Pro
E--> 2850 905          1910          1915          1920
2852 Ser Lys Ser Ser Glu Pro Arg Ser Leu Ala Pro Pro Ser Ser Ser His
2853          1925          1930          1935
2855 Thr Ala Ile Ala Arg Thr Pro Ala Lys Ser Leu Ala Pro His His Ala
2856          1940          1945          1950
2858 Ser Pro Asp Pro Pro Gly Pro Thr Ser Ala Ser Asp Leu His Arg Glu
2859          1955          1960          1965
2861 Lys Thr Gln Ser Lys Pro Phe Ser Ile Gln Glu Leu Glu Leu Arg Ser
2862          1970          1975          1980

```

*same*

RAW SEQUENCE LISTING  
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DATE: 04/10/2001  
 TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

2864 Leu Gly Tyr His Ser Gly Ala Gly Tyr Ser Pro Asp Gly Val Glu Pro  
 E--> 2865 985 1990 1995 2000  
 2867 Ile Ser Pro Val Ser Ser Pro Ser Leu Thr His Asp Lys Gly Leu Ser  
 2868 2005 2010 2015  
 2870 Lys Pro Leu Glu Glu Leu Glu Lys Ser His Leu Glu Gly Glu Leu Arg  
 2871 2020 2025 2030  
 2873 His Lys Gln Pro Gly Pro Met Lys Leu Ser Ala Glu Ala Ala His Leu  
 2874 2035 2040 2045  
 2876 Pro His Leu Arg Pro Leu Pro Glu Ser Gln Pro Ser Ser Ser Pro Leu  
 2877 2050 2055 2060  
 2879 Leu Gln Thr Ala Pro Gly Ile Lys Gly His Gln Arg Val Val Thr Leu  
 E--> 2880 065 2070 2075 2080  
 2882 Ala Gln His Ile Ser Glu Val Ile Thr Gln Asp Tyr Thr Arg His His  
 2883 2085 2090 2095  
 2885 Pro Gln Gln Leu Ser Gly Pro Leu Pro Ala Pro Leu Tyr Ser Phe Pro  
 2886 2100 2105 2110  
 2888 Gly Ala Ser Cys Pro Val Leu Asp Leu Arg Arg Pro Pro Ser Asp Leu  
 2889 2115 2120 2125  
 2891 Tyr Leu Pro Pro Pro Asp His Gly Thr Pro Ala Arg Gly Ser Pro His  
 2892 2130 2135 2140  
 2894 Ser Glu Gly Gly Lys Arg Ser Pro Glu Pro Ser Lys Thr Ser Val Leu  
 E--> 2895 145 2150 2155 2160  
 2897 Gly Ser Ser Glu Asp Ala Ile Glu Pro Val Ser Pro Pro Glu Gly Met  
 2898 2165 2170 2175  
 2900 Thr Glu Pro Gly His Ala Arg Ser Ala Val Tyr Pro Leu Leu Tyr Arg  
 2901 2180 2185 2190  
 2903 Asp Gly Glu Gln Gly Glu Pro Arg Met Gly Ser Lys Ser Pro Gly Asn  
 2904 2195 2200 2205  
 2906 Thr Ser Gln Pro Pro Ala Phe Ser Lys Leu Thr Glu Ser Asn Ser  
 2907 2210 2215 2220  
 2909 Ala Met Val Lys Ser Lys Lys Gln Glu Ile Asn Lys Lys Leu Asn Thr  
 E--> 2910 225 2230 2235 2240  
 2912 His Asn Arg Asn Glu Pro Glu Tyr Asn Ile Gly Gln Pro Gly Thr Glu  
 2913 2245 2250 2255  
 2915 Ile Phe Asn Met Pro Ala Ile Thr Gly Ala Gly Leu Met Thr Cys Arg  
 2916 2260 2265 2270  
 2918 Ser Gln Ala Val Gln Glu His Ala Ser Thr Asn Met Gly Leu Glu Ala  
 2919 2275 2280 2285  
 2921 Ile Ile Arg Lys Ala Leu Met Gly Lys Tyr Asp Gln Trp Glu Glu Pro  
 2922 2290 2295 2300  
 2924 Pro Pro Leu Gly Ala Asn Ala Phe Asn Pro Leu Asn Ala Ser Ala Ser  
 E--> 2925 305 2310 2315 2320  
 2927 Leu Pro Ala Ala Ala Met Pro Ile Thr Thr Ala Asp Gly Arg Ser Asp  
 2928 2325 2330 2335  
 2930 His Ala Leu Thr Ser Pro Gly Gly Gly Gly Lys Ala Lys Val Ser Gly  
 2931 2340 2345 2350  
 2933 Arg Pro Ser Ser Arg Lys Ala Lys Ser Pro Ala Pro Gly Leu Ala Ser  
 2934 2355 2360 2365  
 2936 Gly Asp Arg Pro Pro Ser Val Ser Ser Val His Ser Glu Gly Asp Cys

*same*

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/819,104

DATE: 04/10/2001  
 TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

E--> 2937 2370 2375 2380  
 2939 Asn Arg Arg Thr Pro Leu Thr Asn Arg Val Trp Glu Asp Arg Pro Ser  
 2940 385 2390 2395 2400  
 2942 Ser Ala Gly Ser Thr Pro Phe Pro Tyr Asn Pro Leu Ile Met Arg Leu  
 2943 2405 2410 2415  
 2945 Gln Ala Gly Val Met Ala Ser Pro Pro Pro Gly Leu Ala Ala Gly  
 2946 2420 2425 2430  
 2948 Ser Gly Pro Leu Ala Gly Pro His Ala Trp Asp Glu Glu Pro Lys  
 2949 2435 2440 2445  
 2951 Pro Leu Leu Cys Ser Gln Tyr Glu Thr Leu Ser Asp Ser Glu  
 2952 2450 2455 2460  
 2955 <210> SEQ ID NO: 6  
 2956 <211> LENGTH: 7386  
 2957 <212> TYPE: DNA  
 2958 <213> ORGANISM: Mus musculus  
 2960 <220> FEATURE:  
 2961 <221> NAME/KEY: CDS  
 2962 <222> LOCATION: (1)..(7386)  
 2964 <400> SEQUENCE: 6  
 2965 atg tca gga tcc aca cag cct gtg gca cag aca tgg cgg gct gct gag 48  
 2966 Met Ser Gly Ser Thr Gln Pro Val Ala Gln Thr Trp Arg Ala Ala Glu  
 2967 1 5 10 15  
 2969 ccc cgc tac cca ccc cat ggc atc tcc tac ccg gtg cag ata gcc cgg 96  
 2970 Pro Arg Tyr Pro Pro His Gly Ile Ser Tyr Pro Val Gln Ile Ala Arg  
 2971 20 25 30  
 2973 tcc cac acg gac gtg ggg ctg ctt gag tac caa cac cac ccc cgt gac 144  
 2974 Ser His Thr Asp Val Gly Leu Leu Glu Tyr Cln His His Pro Arg Asp  
 2975 35 40 45  
 2977 tac acc tca cac ctg tca ccc ggt tcc atc atc cag cca cag agg agg 192  
 2978 Tyr Thr Ser His Leu Ser Pro Gly Ser Ile Ile Gln Pro Gln Arg Arg  
 2979 50 55 60  
 2981 cgg ccc tca ctg ctg tca gag ttc cag cct ggg agt gaa cgg tct cag 240  
 2982 Arg Pro Ser Leu Leu Ser Glu Phe Gln Pro Gly Ser Glu Arg Ser Gln  
 2983 65 70 75 80  
 2985 gag ctc cac ctg cgc cct gag tcc cgc acg ttc ctg cct gag ctg ggc 288  
 2986 Glu Leu His Leu Arg Pro Glu Ser Arg Thr Phe Leu Pro Glu Leu Gly  
 2987 85 90 95  
 2989 aag ccc gac ata gaa ttc acc gag agc aag cgc ccc cgc ctg gag cta 336  
 2990 Lys Pro Asp Ile Glu Phe Thr Glu Ser Lys Arg Pro Arg Leu Glu Leu  
 2991 100 105 110  
 2993 cta ccc gat acc ctg ctg cgc cca tca ccc ctg ctg gcc act ggg cag 384  
 2994 Leu Pro Asp Thr Leu Leu Arg Pro Ser Pro Leu Leu Ala Thr Gly Gln  
 2995 115 120 125  
 2997 ccg agt ggg tct gaa gac ctt acc aag gac cgt agc ctg gca ggc aag 432  
 2998 Pro Ser Gly Ser Glu Asp Leu Thr Lys Asp Arg Ser Leu Ala Gly Lys  
 2999 130 135 140  
 3001 ctg gag cct gtg tca cct ccc agt ccc ccg cac gct gac cct gag cta 480  
 3002 Leu Glu Pro Val Ser Pro Pro Ser Pro Pro His Ala Asp Pro Glu Leu  
 3003 145 150 155 160

p. 23

same

## RAW SEQUENCE LISTING

DATE: 04/10/2001

PATENT APPLICATION: US/09/819,104

TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

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3005 gag ctg gcg cca tct cga ctg tcc aag gag gag ctg atc cag aac aga 528
3006 Glu Leu Ala Pro Ser Arg Leu Ser Lys Glu Glu Leu Ile Gln Asn Arg
3007 165 170 175
3009 ttg gac cgc gtg gac cgt gag atc acc atg gta gag cag cag atc tcc 576
3010 Leu Asp Arg Val Asp Arg Glu Ile Thr Met Val Glu Gln Gln Ile Ser
3011 180 185 190
3013 aag ctg aag aag aag cag caa cag ttg gag gag gag gcc gcc aag ccg 624
3014 Lys Leu Lys Lys Lys Gln Gln Gln Leu Glu Glu Glu Ala Ala Lys Pro
3015 195 200 205
3017 ccc gaa ccc gag aag cct gtg tcg cca cca ccc ata gaa tca aag cac 672
3018 Pro Glu Pro Glu Lys Pro Val Ser Pro Pro Pro Ile Glu Ser Lys His
3019 210 215 220
3021 cga agc ctg gtc cag atc atc tac gat gag aac cgg aag ana gcc gaa 720
3022 Arg Ser Leu Val Gln Ile Ile Tyr Asp Glu Asn Arg Lys Lys Ala Glu
3023 225 230 235 240
3025 gcc gca cac cgg atc cta gaa ggc ctg ggg ccc cag gtg gag ctg cct 768
3026 Ala Ala His Arg Ile Leu Glu Gly Leu Gly Pro Gln Val Glu Leu Pro
3027 245 250 255
3029 ctg tac aac cag ccg tct gac aca cgc cag tac cat gaa aac atc aaa 816
3030 Leu Tyr Asn Gln Pro Ser Asp Thr Arg Gln Tyr His Glu Asn Ile Lys
3031 260 265 270
3033 ata aac cag gcg atg cgg aag aag ctg atc ttg tac ttt aag cgg agg 864
3034 Ile Asn Gln Ala Met Arg Lys Lys Leu Ile Leu Tyr Phe Lys Arg Arg
3035 275 280 285
3037 aac cac gcg cgc aag cag tgg gaa cag cgc ttc tgc cag cgc tat gac 912
3038 Asn His Ala Arg Lys Gln Trp Glu Gln Arg Phe Cys Gln Arg Tyr Asp
3039 290 295 300
3041 cag ctc atg gag gcg tgg gag aag aag gta gag cgc ata gag aac aat 960
3042 Gln Leu Met Glu Ala Trp Glu Lys Lys Val Glu Arg Ile Glu Asn Asn
3043 305 310 315 320
3045 ccg cga agg agg gcc aag gag agc aag gtg agg gag tac tac gag aaa 1008
3046 Pro Arg Arg Arg Ala Lys Glu Ser Lys Val Arg Glu Tyr Tyr Glu Lys
3047 325 330 335
3049 cag ttc ccg gag atc cgc aag cag cgg gag ctg cag gag cgc atg cag 1056
3050 Gln Phe Pro Glu Ile Arg Lys Gln Arg Glu Leu Gln Glu Arg Met Gln
3051 340 345 350
3053 agc agg gtg ggc cag cgt ggc agt ggg ctc tcc atg tgg gct gcc cgc 1104
3054 Ser Arg Val Gly Gln Arg Gly Ser Gly Leu Ser Met Ser Ala Ala Arg
3055 355 360 365
3057 agt gag cat gag gtt tct gag atc att gat ggc ttg tct gag cag gag 1152
3058 Ser Glu His Glu Val Ser Glu Ile Ile Asp Gly Leu Ser Glu Gln Glu
3059 370 375 380
3061 aac ctg gag aag cag atg cgc cag ctg gcc gtg atc cgc cat gtt gta 1200
3062 Asn Leu Glu Lys Gln Met Arg Gln Leu Ala Val Ile Arg His Val Val
3063 385 390 395 400
3065 cga cgc gac cag cag agg atc aag ttc atc aac atg aat gga ctc atg 1248
3066 Arg Arg Asp Gln Gln Arg Ile Lys Phe Ile Asn Met Asn Gly Leu Met
3067 405 410 415
3069 gat gac ccc atg aag gtc tac aag gac cgt cag gtt acc aac atg tgg 1296

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## RAW SEQUENCE LISTING

DATE: 04/10/2001

PATENT APPLICATION: US/09/819,104

TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

3070	Asp	Asp	Pro	Met	Lys	Val	Tyr	Lys	Asp	Arg	Gln	Val	Thr	Asn	Met	Trp	
3071				420					425					430			
3073	agc	gag	cag	gag	agg	gac	acc	ttc	cgt	gag	aag	ttt	atg	cag	cac	cct	1344
3074	Ser	Glu	Gln	Glu	Arg	Asp	Thr	Phe	Arg	Glu	Lys	Phe	Met	Gln	His	Pro	
3075			435					440					445				
3077	aag	aac	ttt	ggc	ctg	att	gcc	tca	ttc	ctg	gag	aga	aag	acg	gtc	gct	1392
3078	Lys	Asn	Phe	Gly	Leu	Ile	Ala	Ser	Phe	Leu	Glu	Arg	Lys	Thr	Val	Ala	
3079		450					455					460					
3081	gag	tgt	gtc	ctc	tat	tac	tac	ctg	acc	aag	aag	aat	gaa	aat	tac	aag	1440
3082	Glu	Cys	Val	Leu	Tyr	Tyr	Tyr	Leu	Thr	Lys	Lys	Asn	Glu	Asn	Tyr	Lys	
3083	465				470					475					480		
3085	agc	ttg	gtg	agg	cgg	agc	tat	cgg	cgc	cgt	ggc	aag	agc	cag	cag	cag	1488
3086	Ser	Leu	Val	Arg	Arg	Ser	Tyr	Arg	Arg	Arg	Gly	Lys	Ser	Gln	Gln	Gln	
3087				485					490				495				
3089	cag	cag	cag	caa	cag	cag	cag	cag	cag	cag	atg	gca	cgg	agc	agc		1536
3090	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Met	Ala	Arg	Ser	Ser	
3091			500					505					510				
3093	cag	gag	gag	aag	gag	gag	aag	gag	aag	gag	aag	gag	gcc	gac	aag	gag	1584
3094	Gln	Glu	Glu	Lys	Glu	Glu	Lys	Glu	Lys	Glu	Lys	Glu	Ala	Asp	Lys	Glu	
3095			515					520					525				
3097	gaa	gag	aag	cag	gat	gcg	gag	aac	gag	aag	gaa	gaa	ctc	agc	aag	gag	1632
3098	Glu	Glu	Lys	Gln	Asp	Ala	Glu	Asn	Glu	Lys	Glu	Clu	Leu	Ser	Lys	Glu	
3099		530				535						540					
3101	aag	aca	gac	gac	act	tct	ggc	gag	gac	aac	gat	gag	aaa	gag	gcc	gtg	1680
3102	Lys	Thr	Asp	Asp	Thr	Ser	Gly	Glu	Asp	Asn	Asp	Glu	Lys	Glu	Ala	Val	
3103	545				550					555					560		
3105	gcc	tcc	aaa	ggc	cgc	aaa	act	gcc	aac	agc	caa	ggc	cgc	cgc	aaa	ggc	1728
3106	Ala	Ser	Lys	Gly	Arg	Lys	Thr	Ala	Asn	Ser	Gln	Gly	Arg	Arg	Lys	Gly	
3107			565					570					575				
3109	cgt	atc	acg	cgc	tcc	atg	gcc	aac	gag	gcc	aac	cat	gag	gag	aca	gcc	1776
3110	Arg	Ile	Thr	Arg	Ser	Met	Ala	Asn	Glu	Ala	Asn	His	Glu	Glu	Thr	Ala	
3111			580					585					590				
3113	acc	cca	cag	caa	agt	tca	gag	ctg	gct	tcc	atg	gag	atg	aac	gag	agt	1824
3114	Thr	Pro	Gln	Gln	Ser	Ser	Glu	Leu	Ala	Ser	Met	Glu	Met	Asn	Glu	Ser	
3115			595					600					605				
3117	tct	cgc	tgg	act	gag	gaa	gag	atg	gag	aca	gca	aag	aaa	ggc	ctc	ctg	1872
3118	Ser	Arg	Trp	Thr	Glu	Glu	Glu	Met	Glu	Thr	Ala	Lys	Lys	Gly	Leu	Leu	
3119		610				615					620						
3121	gaa	cat	ggg	agg	aac	tgg	tca	gcc	att	gcc	cgc	atg	gtg	ggc	tcc	aag	1920
3122	Glu	His	Gly	Arg	Asn	Trp	Ser	Ala	Ile	Ala	Arg	Met	Val	Gly	Ser	Lys	
3123	625				630					635					640		
3125	acc	gtg	tcc	cag	tgt	aag	aac	ttc	tac	ttc	aac	tac	aag	aag	agg	cag	1968
3126	Thr	Val	Ser	Gln	Cys	Lys	Asn	Phe	Tyr	Phe	Asn	Tyr	Lys	Lys	Arg	Gln	
3127			645					650					655				
3129	aac	ctg	gac	gaa	atc	ctt	cag	cag	cac	aag	cta	aag	atg	gag	aag	gag	2016
3130	Asn	Leu	Asp	Glu	Ile	Leu	Gln	Gln	His	Lys	Leu	Lys	Met	Glu	Lys	Glu	
3131			660					665					670				
3133	agg	aac	gct	cgg	agg	aag	aag	aag	acc	cca	gct	gcg	gcg	agc	gag		2064
3134	Arg	Asn	Ala	Arg	Arg	Lys	Lys	Lys	Lys	Thr	Pro	Ala	Ala	Ala	Ser	Glu	

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3135	675	680	685	
3137	gag aca gcc ttc cca cct gcc gct gag gac gaa gag atg gaa gca tca	2112		
3138	Glu Thr Ala Phe Pro Pro Ala Ala Glu Asp Glu Glu Met Glu Ala Ser			
3139	690	695	700	
3141	ggc gca agt gcc aat gag gaa gag ctg gcg gag gag gca gaa gcc tca	2160		
3142	Gly Ala Ser Ala Asn Glu Glu Glu Leu Ala Glu Glu Ala Glu Ala Ser			
3143	705	710	715	720
3145	cag gcc tct ggg aat gag gtt ccc aga gtt ggg gag tgc agt ggc cca	2208		
3146	Gln Ala Ser Gly Asn Glu Val Pro Arg Val Gly Glu Cys Ser Gly Pro			
3147	725	730	735	
3149	gct gct gtc aac aac agc tct gat act gag agt gtc cca tcc ccg cgt	2256		
3150	Ala Ala Val Asn Asn Ser Ser Asp Thr Glu Ser Val Pro Ser Pro Arg			
3151	740	745	750	
3153	tca gaa gcc acg aag gac act ggg cct aaa ccc act ggc act gaa gca	2304		
3154	Ser Glu Ala Thr Lys Asp Thr Gly Pro Lys Pro Thr Gly Thr Glu Ala			
3155	755	760	765	
3157	ttg ccc gct gcc acc cag cca cct gtt cct cct cca gaa gaa ccg gca	2352		
3158	Leu Pro Ala Ala Thr Gln Pro Pro Val Pro Pro Pro Glu Glu Pro Ala			
3159	770	775	780	
3161	gca gcc cct gct gag ccc tcc cca gtc cct gat gcc agt ggc cca cca	2400		
3162	Ala Ala Pro Ala Glu Pro Ser Pro Val Pro Asp Ala Ser Gly Pro Pro			
3163	785	790	795	800
3165	tcc cca gag cct tcc cca tca cct gcc gca ccc ccg gct act gtg gac	2448		
3166	Ser Pro Glu Pro Ser Pro Ser Pro Ala Ala Pro Pro Ala Thr Val Asp			
3167	805	810	815	
3169	aag gat gaa caa gaa gcc ccg gct gct cca gct ccc cag aca gaa gat	2496		
3170	Lys Asp Glu Gln Glu Ala Pro Ala Ala Pro Ala Pro Gln Thr Glu Asp			
3171	820	825	830	
3173	gcc aag gag cag aag tct gag gcc gag gag atc gat gtg gga aag cca	2544		
3174	Ala Lys Glu Gln Lys Ser Glu Ala Glu Glu Ile Asp Val Gly Lys Pro			
3175	835	840	845	
3177	gag gag ccc gag gcc tct gag gag ccc ccg gag agt gta aag agt gac	2592		
3178	Glu Glu Pro Glu Ala Ser Glu Glu Pro Pro Glu Ser Val Lys Ser Asp			
3179	850	855	860	
3181	cac aag gag gag acc gag gaa gag cct gaa gac aaa gcc aag ggc aca	2640		
3182	His Lys Glu Glu Thr Glu Glu Glu Pro Glu Asp Lys Ala Lys Gly Thr			
3183	865	870	875	880
3185	gag gcc att gaa act gtg tct gag gca cca ctt aag gtg gag gag gct	2688		
3186	Glu Ala Ile Glu Thr Val Ser Glu Ala Pro Leu Lys Val Glu Glu Ala			
3187	885	890	895	
3189	ggt agc aag gca gct gtg acc aag ggt tcc agc tca ggt gcc acc cag	2736		
3190	Gly Ser Lys Ala Ala Val Thr Lys Gly Ser Ser Ser Gly Ala Thr Gln			
3191	900	905	910	
3193	gac agt gac tcc agt gcc acc tgc agt gcc gat gag gtg gac gaa ccc	2784		
3194	Asp Ser Asp Ser Ser Ala Thr Cys Ser Ala Asp Glu Val Asp Glu Pro			
3195	915	920	925	
3197	gaa gga ggt gac aag ggc agg ctg ctg tca cca agg ccc agc ctc ctc	2832		
3198	Glu Gly Gly Asp Lys Gly Arg Leu Leu Ser Pro Arg Pro Ser Leu Leu			
3199	930	935	940	

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3201 acc ccg gct gga gat ccc cgg gcc agt acc tcg ccc cag aag ccg ctg 2880
3202 Thr Pro Ala Gly Asp Pro Arg Ala Ser Thr Ser Pro Gln Lys Pro Leu
3203 945 950 955 960
3205 gac ctg aag cag ctg aag cag cga gca gcc gcc atc ccc cct atc gtc 2928
3206 Asp Leu Lys Gln Leu Lys Gln Arg Ala Ala Ala Ile Pro Pro Ile Val
3207 965 970 975
3209 acc aag gtc cat gag ccc ccc cgg gag gac aca gta ccc cca aag cca 2976
3210 Thr Lys Val His Glu Pro Pro Arg Glu Asp Thr Val Pro Pro Lys Pro
3211 980 985 990
3213 gtt ccc cct gtg cct cca ccc acg cag cac cta cag cca gag ggt gac 3024
3214 Val Pro Pro Val Pro Pro Pro Thr Gln His Leu Gln Pro Glu Gly Asp
3215 995 1000 1005
3217 gtg tct cag cag tcg gga gga agt cca cgt ggc aag tcc cgc agc cca 3072
3218 Val Ser Gln Gln Ser Gly Gly Ser Pro Arg Gly Lys Ser Arg Ser Pro
3219 1010 1015 1020
3221 gtg cct cct gcc gag aaa gag gca gag aaa ccc gca ttc ttt ccg gct 3120
3222 Val Pro Pro Ala Glu Lys Glu Ala Glu Lys Pro Ala Phe Phe Pro Ala
3223 1025 1030 1035 1040
3225 ttc cca act gag ggc caa agc tac cga ctg agc ccc cac gct ggt cat 3168
3226 Phe Pro Thr Glu Gly Gln Ser Tyr Arg Leu Ser Pro His Ala Gly His
3227 1045 1050 1055
3229 cgg ctg cct tcc cat cct cca cgg gag gtg atc aag act tcc aca cgc 3216
3230 Arg Leu Pro Ser His Pro Pro Arg Glu Val Ile Lys Thr Ser Thr Arg
3231 1060 1065 1070
3233 gct gac cct ctc ttc tcc tac aca ccc ccc ggt cac ccg ctg cct ctg 3264
3234 Ala Asp Pro Leu Phe Ser Tyr Thr Pro Pro Gly His Pro Leu Pro Leu
3235 1075 1080 1085
3237 ggc ctc cac gat agt gcc cgg ccc gtc ctg cca cgt ccc ccc atc tct 3312
3238 Gly Leu His Asp Ser Ala Arg Pro Val Leu Pro Arg Pro Pro Ile Ser
3239 1090 1095 1100
3241 aac ccc cca ccc ctc atc tcc tct gcc aag cat ccc ggc gta ctt gag 3360
3242 Asn Pro Pro Pro Leu Ile Ser Ser Ala Lys His Pro Gly Val Leu Glu
3243 1105 1110 1115 1120
3245 agg cag ctg ggt gcc atc tcc cag ggg atg tca gtc cag ctt cgt gtg 3408
3246 Arg Gln Leu Gly Ala Ile Ser Gln Gly Met Ser Val Gln Leu Arg Val
3247 1125 1130 1135
3249 cct cac tca gag cat gcc aag ccc atg ggc cct ctc acc atg gag ctg 3456
3250 Pro His Ser Glu His Ala Lys Pro Met Gly Pro Leu Thr Met Glu Leu
3251 1140 1145 1150
3253 ccc ctt gcc gtg gac cct aag aag ctg ggg aca gca ctg gct ccg cca 3504
3254 Pro Leu Ala Val Asp Pro Lys Lys Leu Gly Thr Ala Leu Ala Pro Pro
3255 1155 1160 1165
3257 cca gtg gaa gca tca cca agg gcc tcc cag tac ccg ggc tgc aga cgg 3552
3258 Pro Val Glu Ala Ser Pro Arg Ala Ser Gln Tyr Pro Gly Cys Arg Arg
3259 1170 1175 1180
3261 ccc cag cta cag agg ctc tat cac cca cgc acg ccc gca gac gtc ctc 3600
3262 Pro Gln Leu Gln Arg Leu Tyr His Pro Arg Thr Pro Ala Asp Val Leu
3263 1185 1190 1195 1200
3265 tac aag ggt acc atc agc agg atc gtc ggt gag gac agc cca agt cgc 3648

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3266 Tyr Lys Gly Thr Ile Ser Arg Ile Val Gly Glu Asp Ser Pro Ser Arg
3267          1205          1210          1215
3269 ctt gac cgg gca cga gag gac acc ctg ccc aag ggc cat gtc atc tat 3696
3270 Leu Asp Arg Ala Arg Glu Asp Thr Leu Pro Lys Gly His Val Ile Tyr
3271          1220          1225          1230
3273 gag ggc aag aaa ggc cac gtc cta tcc tat gaa ggt ggt atg tcc gtg 3744
3274 Glu Gly Lys Lys Gly His Val Leu Ser Tyr Glu Gly Gly Met Ser Val
3275          1235          1240          1245
3277 tca cag tgc tct aag gag gat gga agg agc agc tgc ggc cca ccc cat 3792
3278 Ser Gln Cys Ser Lys Glu Asp Gly Arg Ser Ser Ser Gly Pro Pro His
3279          1250          1255          1260
3281 gag act gcc gcc cct aaa cgc acc tat gac atg atg gag ggc cgt gta 3840
3282 Glu Thr Ala Ala Pro Lys Arg Thr Tyr Asp Met Met Glu Gly Arg Val
3283 1265          1270          1275          1280
3285 ggc agg act gtc acc tca gcc agc ata gag gga ctc atg ggc cgc gcc 3888
3286 Gly Arg Thr Val Thr Ser Ala Ser Ile Glu Gly Leu Met Gly Arg Ala
3287          1285          1290          1295
3289 atc cct gag cag cac agc ccc cac ctc aag gag cag cat cac atc cga 3936
3290 Ile Pro Glu Gln His Ser Pro His Leu Lys Glu Gln His His Ile Arg
3291          1300          1305          1310
3293 ggc tcc atc acg caa ggc atc ccg agg tcc tat gtg gag gcg cag gag 3984
3294 Gly Ser Ile Thr Gln Gly Ile Pro Arg Ser Tyr Val Glu Ala Gln Glu
3295          1315          1320          1325
3297 gac tac tta cgg cgg gag gcc aag ctc ttg aag cga gaa ggg aca cca 4032
3298 Asp Tyr Leu Arg Arg Glu Ala Lys Leu Leu Lys Arg Glu Gly Thr Pro
3299          1330          1335          1340
3301 cct ccc cca cca cca cct ccg gac ctg act gag acc tac aag ccc ccg 4080
3302 Pro Pro Pro Pro Pro Pro Arg Asp Leu Thr Glu Thr Tyr Lys Pro Arg
3303 1345          1350          1355          1360
3305 ccc ctg gac cct ctg ggt ccc ctg aag ctg aag ccg act cac gag ggt 4128
3306 Pro Leu Asp Pro Leu Gly Pro Leu Lys Leu Lys Pro Thr His Glu Gly
3307          1365          1370          1375
3309 gtg gta gca act gtg aag gag gcg ggc cgc tct atc cat gag atc ccg 4176
3310 Val Val Ala Thr Val Lys Glu Ala Gly Arg Ser Ile His Glu Ile Pro
3311          1380          1385          1390
3313 aga gag gag ctg cgc cgc aca cct gag cta ccc ctg gca cca cgg cct 4224
3314 Arg Glu Glu Leu Arg Arg Thr Pro Glu Leu Pro Leu Ala Pro Arg Pro
3315          1395          1400          1405
3317 ctg aag gag ggt tcc atc acc cag ggc acc cca ctc aag tac gac tct 4272
3318 Leu Lys Glu Gly Ser Ile Thr Gln Gly Thr Pro Leu Lys Tyr Asp Ser
3319          1410          1415          1420
3321 ggg gca ccc tcc act ggc acc aag aaa cac gac gtg cgc tcc atc atc 4320
3322 Gly Ala Pro Ser Thr Gly Thr Lys Lys His Asp Val Arg Ser Ile Ile
3323 1425          1430          1435          1440
3325 ggc agc ccc ggc cgg cct ttc cct gcc ctg cac ccg ctg gac ata atg 4368
3326 Gly Ser Pro Gly Arg Pro Phe Pro Ala Leu His Pro Leu Asp Ile Met
3327          1445          1450          1455
3329 gct gac gcc cgg gca ctg gag cgt gcc tgc tat gaa gag agt ctg aag 4416
3330 Ala Asp Ala Arg Ala Leu Glu Arg Ala Cys Tyr Glu Glu Ser Leu Lys

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3331	1460	1465	1470	
3333	agc cgg tca ggg acc agc agt ggt gca ggg ggc tcc atc aca cgt ggg	4464		
3334	Ser Arg Ser Gly Thr Ser Ser Gly Ala Gly Gly Ser Ile Thr Arg Gly			
3335	1475	1480	1485	
3337	gct cca gtc gtc gtg cct gaa ctg ggc aag cca cgg caa agc cca ctg	4512		
3338	Ala Pro Val Val Val Pro Glu Leu Gly Lys Pro Arg Gln Ser Pro Leu			
3339	1490	1495	1500	
3341	act tac gaa gac cac ggg gca ccc ttc acc agt cac ctg cca cgt ggc	4560		
3342	Thr Tyr Glu Asp His Gly Ala Pro Phe Thr Ser His Leu Pro Arg Gly			
3343	1505	1510	1515	1520
3345	tcc cct gtg acc acg agg gag ccc acg cca cgc ctt cag gaa ggc agc	4608		
3346	Ser Pro Val Thr Thr Arg Glu Pro Thr Pro Arg Leu Gln Glu Gly Ser			
3347	1525	1530	1535	
3349	ctc cta tcc agc aag gcg tcc cag gac cgg aag ctg aca tct aca ccc	4656		
3350	Leu Leu Ser Ser Lys Ala Ser Gln Asp Arg Lys Leu Thr Ser Thr Pro			
3351	1540	1545	1550	
3353	cgg gag atc gcc aag tcc cca cac agc act gty ccc gag cac cac cct	4704		
3354	Arg Glu Ile Ala Lys Ser Pro His Ser Thr Val Pro Glu His His Pro			
3355	1555	1560	1565	
3357	cac ccc atc tcc ccc tat gag cac ttg ctc cgg ggc gtg act ggt gtg	4752		
3358	His Pro Ile Ser Pro Tyr Glu His Leu Leu Arg Gly Val Thr Gly Val			
3359	1570	1575	1580	
3361	gac ctg tac cgt ggt cac atc cca ttg gcc ttt gac ccc acc tcc ata	4800		
3362	Asp Leu Tyr Arg Gly His Ile Pro Leu Ala Phe Asp Pro Thr Ser Ile			
3363	1585	1590	1595	1600
3365	ccc cga ggg atc cct ctg gaa gca gca gcc gca gcc tac tac ctg ccc	4848		
3366	Pro Arg Gly Ile Pro Leu Glu Ala Ala Ala Ala Tyr Tyr Leu Pro			
3367	1605	1610	1615	
3369	cgg cac ttg gcc ccc agc ccc acc tac cca cac ctg tac cca cct tac	4896		
3370	Arg His Leu Ala Pro Ser Pro Thr Tyr Pro His Leu Tyr Pro Pro Tyr			
3371	1620	1625	1630	
3373	ctc atc cgc ggc tac cct gac acg gcg gcc ctg gag aac cgc cag acc	4944		
3374	Leu Ile Arg Gly Tyr Pro Asp Thr Ala Ala Leu Glu Asn Arg Gln Thr			
3375	1635	1640	1645	
3377	atc atc aat gac tac atc acc tcg cag cag atg cac cac aac gct gcc	4992		
3378	Ile Ile Asn Asp Tyr Ile Thr Ser Gln Gln Met His His Asn Ala Ala			
3379	1650	1655	1660	
3381	tcc gcc atg gcc cag cgt gct gac atg ctg agg ggt ctg tca ccg cga	5040		
3382	Ser Ala Met Ala Gln Arg Ala Asp Met Leu Arg Gly Leu Ser Pro Arg			
3383	1665	1670	1675	1680
3385	gag tcc tcg ctg gcc ctc aat tatttcc gct ggc cca aga ggc att atc	5088		
3386	Glu Ser Ser Leu Ala Leu Asn Tyr Ser Ala Gly Pro Arg Gly Ile Ile			
3387	1685	1690	1695	
3389	gac ctg tcc caa gtg cca cac ctg ccc gtg ctg gtg cca cca acg cca	5136		
3390	Asp Leu Ser Gln Val Pro His Leu Pro Val Leu Val Pro Pro Thr Pro			
3391	1700	1705	1710	
3393	ggc acc cct gcc acc gcc atc gac cgc ctt gcc tac ctc ccc act gcg	5184		
3394	Gly Thr Pro Ala Thr Ala Ile Asp Arg Leu Ala Tyr Leu Pro Thr Ala			
3395	1715	1720	1725	

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3397 ccc cca ccc ttc agc agc cgc cac agt agc tca ccg ctg tcc cca gga 5232
3398 Pro Pro Pro Phe Ser Ser Arg His Ser Ser Pro Leu Ser Pro Gly
3399 1730 1735 1740
3401 ggc ccc act cac cta gct aaa cca act gcc aca tct tca tgg gag cgg 5280
3402 Gly Pro Thr His Leu Ala Lys Pro Thr Ala Thr Ser Ser Ser Glu Arg
3403 1745 1750 1755 1760
3405 gaa cgg gaa cgt gag cgg gaa cga gac aag tcc atc ctc acg tct acc 5328
3406 Glu Arg Glu Arg Glu Arg Glu Arg Asp Lys Ser Ile Leu Thr Ser Thr
3407 1765 1770 1775
3409 act aca gtg gag cat gca ccc atc tgg aga cct ggt acg gag cag agc 5376
3410 Thr Thr Val Glu His Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser
3411 1780 1785 1790
3413 agc ggg gct ggg ggc agc agc cgc ccc gcc tcc cac acc cac cag cac 5424
3414 Ser Gly Ala Gly Gly Ser Ser Arg Pro Ala Ser His Thr His Gln His
3415 1795 1800 1805
3417 tgg ccc atc tcc ccc cgg acc cag gac gcc ttg cag cag agg ccc agt 5472
3418 Ser Pro Ile Ser Pro Arg Thr Gln Asp Ala Leu Gln Gln Arg Pro Ser
3419 1810 1815 1820
3421 gtg ctg cac aac acg agc atg aag ggc gtg gtc acc tcc gtg gaa ccc 5520
3422 Val Leu His Asn Thr Ser Met Lys Gly Val Val Thr Ser Val Glu Pro
3423 1825 1830 1835 1840
3425 ggc acg ccc acg gtc ctg agg tcc acc tcc acc tct tgg cct gtc cgc 5568
3426 Gly Thr Pro Thr Val Leu Arg Ser Thr Ser Thr Ser Ser Pro Val Arg
3427 1845 1850 1855
3429 cca gct gcc aca ttc cca cct gcc acc cac tgc cca ctt ggt ggc acc 5616
3430 Pro Ala Ala Thr Phe Pro Pro Ala Thr His Cys Pro Leu Gly Gly Thr
3431 1860 1865 1870
3433 ctt gaa ggg gtc tac cct acc ctc atg gag ccc gtc ctg tta ccc aag 5664
3434 Leu Glu Gly Val Tyr Pro Thr Leu Met Glu Pro Val Leu Leu Pro Lys
3435 1875 1880 1885
3437 gag acc tct cgg gtc gcc cgg ccc gag cgg ccc cgt gtg gac ggt ggc 5712
3438 Glu Thr Ser Arg Val Ala Arg Pro Glu Arg Pro Arg Val Asp Gly Gly
3439 1890 1895 1900
3441 cat gcc ttc ctc acc aaa ccc ccg gcc cgg gag ccc gcc tcc tca ccc 5760
3442 His Ala Phe Leu Thr Lys Pro Pro Ala Arg Glu Pro Ala Ser Ser Pro
3443 1905 1910 1915 1920
3445 agc aag agc tcc gag ccc cga tcc cta gca ccc ccc agc tcc agc cac 5808
3446 Ser Lys Ser Ser Glu Pro Arg Ser Leu Ala Pro Pro Ser Ser Ser His
3447 1925 1930 1935
3449 aca gcc atc gcc cgc acc cca gca aag agc ctt gca ccc cac cat gcc 5856
3450 Thr Ala Ile Ala Arg Thr Pro Ala Lys Ser Leu Ala Pro His His Ala
3451 1940 1945 1950
3453 agt ccg gac ccg ccg ggg ccc acc tgg gcc tca gat ctg cac cga gaa 5904
3454 Ser Pro Asp Pro Pro Gly Pro Thr Ser Ala Ser Asp Leu His Arg Glu
3455 1955 1960 1965
3457 aag act caa agt aaa ccc ttt tcc atc cag gaa ttg gaa ctc cgt tct 5952
3458 Lys Thr Gln Ser Lys Pro Phe Ser Ile Gln Glu Leu Glu Leu Arg Ser
3459 1970 1975 1980
3461 ctg ggt tac cac agt gga gct ggc tac agc ccc gat ggg gtg gag ccc 6000

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3462 Leu Gly Tyr His Ser Gly Ala Gly Tyr Ser Pro Asp Gly Val Glu Pro
3463 1985          1990          1995          2000
3465 atc agc ccg gtg agc tcc ccc agc ctg acc cac gac aag ggg ctc tcc 6048
3466 Ile Ser Pro Val Ser Ser Pro Ser Leu Thr His Asp Lys Gly Leu Ser
3467          2005          2010          2015
3469 aaa cct ctg gaa gag cta gag aag agc cac ttg gaa ggg gag ctg cgg 6096
3470 Lys Pro Leu Glu Glu Leu Glu Lys Ser His Leu Glu Gly Glu Leu Arg
3471          2020          2025          2030
3473 cac aag cag cca ggc ccc atg aag ctc agc gcg gag gct gcc cat ctc 6144
3474 His Lys Gln Pro Gly Pro Met Lys Leu Ser Ala Glu Ala Ala His Leu
3475          2035          2040          2045
3477 cca cat ctg cgg cca ctg ccc gag agc cag ccc tca tcc agc cca ctc 6192
3478 Pro His Leu Arg Pro Leu Pro Glu Ser Gln Pro Ser Ser Ser Pro Leu
3479          2050          2055          2060
3481 ctc cag act gcc cca ggc atc aaa ggt cac cag agg gtg gtc acc ctg 6240
3482 Leu Gln Thr Ala Pro Gly Ile Lys Gly His Gln Arg Val Val Thr Leu
3483 2065          2070          2075          2080
3485 gct cag cac atc agc gag gtc att acg cag gac tac acc cgg cac cac 6288
3486 Ala Gln His Ile Ser Glu Val Ile Thr Gln Asp Tyr Thr Arg His His
3487          2085          2090          2095
3489 ccg cag cag ctc agt ggc ccc ctt ccc gcc cct ctc tac tcc ttt ccc 6336
3490 Pro Gln Gln Leu Ser Gly Pro Leu Pro Ala Pro Leu Tyr Ser Phe Pro
3491          2100          2105          2110
3493 gga gcc agc tgc cct gtg ctg gat ctt cgc cgc cca ccc agt gac ctc 6384
3494 Gly Ala Ser Cys Pro Val Leu Asp Leu Arg Arg Pro Pro Ser Asp Leu
3495          2115          2120          2125
3497 tac ctc cca ccc ccc gac cat ggc acc cca gcc cgg gga tcc ccc cac 6432
3498 Tyr Leu Pro Pro Pro Asp His Gly Thr Pro Ala Arg Gly Ser Pro His
3499          2130          2135          2140
3501 agt gaa ggg ggc aaa agg tcc cca gaa ccc agc aaa aca tcg gtc ctg 6480
3502 Ser Glu Gly Gly Lys Arg Ser Pro Glu Pro Ser Lys Thr Ser Val Leu
3503 2145          2150          2155          2160
3505 ggc agc agt gag gat gcc att gag cct gtg tcc cca cca gag ggc atg 6528
3506 Gly Ser Ser Glu Asp Ala Ile Glu Pro Val Ser Pro Pro Glu Gly Met
3507          2165          2170          2175
3509 act gag cca gga cat gct cgg agc gct gtg tac cca ctg ctg tat cga 6576
3510 Thr Glu Pro Gly His Ala Arg Ser Ala Val Tyr Pro Leu Leu Tyr Arg
3511          2180          2185          2190
3513 gac ggg gaa cag ggc gag ccc agg atg ggc tct aag tct cca gcc aac 6624
3514 Asp Gly Glu Gln Gly Glu Pro Arg Met Gly Ser Lys Ser Pro Gly Asn
3515          2195          2200          2205
3517 acc agc cag ccg cca gcc ttc ttc agt aag ctg act gag agc aac tcc 6672
3518 Thr Ser Gln Pro Pro Ala Phe Phe Ser Lys Leu Thr Glu Ser Asn Ser
3519          2210          2215          2220
3521 gcc atg gtg aag tcg aag aag cag gag atc aac aag aaa ctc aac acc 6720
3522 Ala Met Val Lys Ser Lys Lys Gln Glu Ile Asn Lys Lys Leu Asn Thr
3523 2225          2230          2235          2240
3525 cac aac cgg aac gag cca gaa tac aat att gcc cag cct ggg acg gaa 6768
3526 His Asn Arg Asn Glu Pro Glu Tyr Asn Ile Gly Gln Pro Gly Thr Glu

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 TIME: 16:14:30

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

```

3527          2245          2250          2255
3529 atc ttc aac atg ccc gcc atc act gga gca ggc ctt atg acc tgt aga 6816
3530 Ile Phe Asn Met Pro Ala Ile Thr Gly Ala Gly Leu Met Thr Cys Arg
3531          2260          2265          2270
3533 agc cag gcg gtg caa gaa cac gcc agc acc aac atg ggg cta gag gcc 6864
3534 Ser Gln Ala Val Gln Glu His Ala Ser Thr Asn Met Gly Leu Glu Ala
3535          2275          2280          2285
3537 att att aga aag gca ctc atg ggt aaa tat gat cag tgg gaa gag ccc 6912
3538 Ile Ile Arg Lys Ala Leu Met Gly Lys Tyr Asp Gln Trp Glu Glu Pro
3539          2290          2295          2300
3541 ccg ccg ctc ggc gcc aat gct ttt aac cct ctg aat gcc agc gcc agt 6960
3542 Pro Pro Leu Gly Ala Asn Ala Phe Asn Pro Leu Asn Ala Ser Ala Ser
3543 2305          2310          2315          2320
3545 ctg ccc gct gct gct atg ccc ata acc act gct gac gga cgg agt gac 7008
3546 Leu Pro Ala Ala Ala Met Pro Ile Thr Thr Ala Asp Gly Arg Ser Asp
3547          2325          2330          2335
3549 cac gca ctc acc tcg cca ggt gga ggt ggg aaa gcc aag gtc tct ggc 7056
3550 His Ala Leu Thr Ser Pro Gly Gly Gly Gly Lys Ala Lys Val Ser Gly
3551          2340          2345          2350
3553 aga cct agc agc cga aaa gcc aag tcg cca gca cca ggc cta gcg tcc 7104
3554 Arg Pro Ser Ser Arg Lys Ala Lys Ser Pro Ala Pro Gly Leu Ala Ser
3555          2355          2360          2365
3557 gga gac cga ccc cct tct gtc tcc tca gla cac tca gag ggg gac tgc 7152
3558 Gly Asp Arg Pro Pro Ser Val Ser Ser Val His Ser Glu Gly Asp Cys
3559          2370          2375          2380
3561 aat cgc cga aca cca ctc acc aac cgt gtg tgg gag gac cgg ccc tca 7200
3562 Asn Arg Arg Thr Pro Leu Thr Asn Arg Val Trp Glu Asp Arg Pro Ser
3563 2385          2390          2395          2400
3565 tct gca ggg tcc acg cca ttc ccc tac aac cct ttg att atg agg cta 7248
3566 Ser Ala Gly Ser Thr Pro Phe Pro Tyr Asn Pro Leu Ile Met Arg Leu
3567          2405          2410          2415
3569 cag gca ggt gtc atg gcc tcc ccg ccc cca cct ggc ctt gcg gca ggc 7296
3570 Gln Ala Gly Val Met Ala Ser Pro Pro Pro Pro Gly Leu Ala Ala Gly
3571          2420          2425          2430
3573 agc ggg ccc cta gct ggt ccc cac cac gcc tgg gat gag gag ccc aag 7344
3574 Ser Gly Pro Leu Ala Gly Pro His His Ala Trp Asp Glu Glu Pro Lys
3575          2435          2440          2445
3577 cca ctg ctg tgt tca cag tat gag aca ctc tcg gac agc gag 7386
3578 Pro Leu Leu Cys Ser Gln Tyr Glu Thr Leu Ser Asp Ser Glu
3579          2450          2455          2460
E--> 3584 1

```



## VERIFICATION SUMMARY

DATE: 04/10/2001

PATENT APPLICATION: US/09/819,104

TIME: 16:14:31

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04102001\I819104.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:900 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
M:332 Repeated in SeqNo=2  
L:2685 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:5  
M:332 Repeated in SeqNo=5  
L:3584 M:254 E: No..of Bases conflict, LENGTH:Input:1 Counted:7386 SEQ:6